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(7370 or 7371 or 7372 or 7375))
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advice or analysis or analyzing or recommendation or recommending or evaluat?) or financial(()
(planning or analysis))
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| Author | | e.g. ward j? or ward, j? | (Help) |

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② Search Full-Text Databases-Group 2

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(7370 or 7371 or 7372 or 7375))
s# and (software or internet)/de and ((investment? or portfolio?)(3n)(planning or selection or
advice or analysis or analyzing or recommendation or recommending or evaluat?) or financial()
(planning or analysis))
s# or s#

⚠ Make sure your cursor is placed fully to the left in each search box.

Search Term(s) | slippage | | and ▾ | (Help)

Author | | e.g. ward j? or ward, j?   (Help)

Years Before and Including | All Years ▾ | (Help)

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③ Search Abstract Databases

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((investment? or portfolio?)(3n)(planning or selection or advice or analysis or analyzing or recommendation or recommending or evaluat?) or financial()(planning or analysis))

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Clamping down on transaction costs
Schmerken, Ivy
Wall Street & Technology, v11n1 , Page: 42-48 , Jul 1993

A growing number of institutional managers and plan sponsors that do at least $20 million in turnover have been turning to services that scrutinize the costs of trading. But these services do not provide unanimously accepted solutions. Three major consulting services that measure stock transaction costs differ in their methodologies. SEI Corp. measures the prices of the manager's executions the day after the firm has finished the order to see what kind of price reversal it has sustained versus the industry group for that stock. Abel/Noser Corp.'s system measures market impact by comparing each transaction to the average price of all shares traded in that stock during that day. The newest method, Alpha Capture Service from the Plexus Group, involves capturing and time stamping all the decisions made by the investment managers. Institutional investors say there are pros and cons to each method. According to Investors Research Corp.'s Harold Bradley, investment managers would not want to change their investment style to make transaction costs look better.

Pension sponsors have fiduciary responsibility to get the best execution at the lowest possible cost under ERISA, but in most cases, they are unable to determine whether they are getting it, let alone figure out how to attain it. "The plan sponsors are trying to measure costs in a vacuum," says Harold Bradley, director of equity trading for Kansas City-based Investors Research Corp. The mix of many factors that influence best execution--liquidity, volatility, trading style, market conditions and limit order constraints--make it difficult to calculate. Blurring the picture further, there are "hidden costs, including soft dollars and direct payments to brokers in return for computer services and research products, which keep investment managers from making the best decision on price," says Bradley. As a result, a growing number of institutional managers and plan sponsors that do at least $20 million in turnover, in order to make the effort

worthwhile, have been turning to services that scrutinize the costs of trading, such as Abel/Noser Corp., Plexus Group and SEI Corp. But these services don't provide unanimously accepted solutions. Each has its critics, and subscribers often find themselves using multiple services, which, of course, can get expensive and require enough transaction cost savings to make the deal cost-effective. Plexus charges investment managers $60,000 to $70,000 a year; Abel/Noser, $20,000 to $50,000; and SEI, $40,000 on average.

What exactly does it cost to trade? While commission fees have been driven down on average to about 5 cents per share, and institutions pay as low as a penny or 2 cents per share, brokerage fees are only the tip of the iceberg. Hidden costs are price impact, opportunity cost and timing. From decision point to execution and final placement in the portfolio, a typical round-trip trade falls in the range of 200 to 300 basis points. Of that total, brokerage commissions only account for 10 to 15 basis points. Bad trading can cost anywhere from 350 to 700 basis points.

Though the best method for determining transaction costs is a matter of debate, the tools for doing so, regardless of technique, have been maturing. In particular, more sophisticated systems on buy-side trading desks now make it possible to capture data and time stamp all the investment manager's decisions. Adding fuel to the debate has been another area filled with controversy now under the scrutiny of the Securities and Exchange Commission's Market 2000 study--the use of proprietary trading systems, such as Instinet, Posit, The Crossing Network and Arizona Stock Exchange. Money managers and buy-side traders contend systems provide lower trading costs than traditional exchanges as well as anonymity and no market impact (see "Buy Side Champions Alternative Trading Systems," WS&T, June 1993).

LEADING PROVIDERS. Three major consulting services that measure stock transaction costs differ in their methodologies. SEI, which introduced its cost-

measurement service in 1983, measures the prices of the manager's executions the day after the firm has finished the order to see what kind of price reversal it has sustained versus the industry group for that stock. SEI continues monitoring the manager's executions for all buy and sell orders for up to 20 or 30 days after the firm has finished trading.

Gilbert Beebower, SEI executive vice president, contends that trading costs should be evaluated on whether the portfolio is better off after the trade is done. If the stock price performance exceeds the trading costs, then the manager comes out ahead.

Abel/Noser Corp.'s system, launched in 1986, measures market impact by comparing each transaction to the average price of all shares traded in that stock during that day. This calculation, known as the volume weighted average price (VWAP), was introduced in a 1986 study on pension performance for the Department of Labor conducted by consultants Berkowitz, Logue Associates. Today, Abel/Noser measures trading costs for 40 percent of the institutional trading volume that occurs on the New York and American stock exchanges and Nasdaq. In total, Abel/Noser measures $1 trillion worth of institutional equity trades or 3 billion shares a year. For its trade cost measurement service, Abel/Noser calculates the VWAP at the end of each day. However, the VWAP is also available in real time on its proprietary trading system and through various services, such as Instinet and Bridge Data. According to Abel/Noser's universe of 300 pension plans, the average trading cost is 2 cents per share; the worst is 7.8 cents per share; and the best is adding 4.6 cents per share. Managers can add value to trading when they buy at a lower price or sell at a higher price than the VWAP.

The newest method, Alpha Capture Service from the Plexus Group, launched in 1989 and aimed at investment managers, is the most complex and data intensive because it involves capturing and time stamping all the decisions made by the

investment managers, including the times when they release an order to a trader and then again when the trader releases it to a broker.

Plexus is the only method that attempts to measure the opportunity cost--the performance that went unrealized because the manager's ideas weren't executed. This could occur for a variety of reasons: lack of liquidity; the manager had a limit order in place that wasn't triggered; or the trader was too passive, and the price moved away. Plexus also measures price impact--the adjustment in liquidity that has to be made to accommodate the buy or sell order. In addition, Plexus measures timing cost-any price variation that occurs before the trade can be executed.

This approach draws on a 1988 paper by Harvard Business School professor Andre Perold, who coined the term "implementation shortfall" to describe the slippage that occurs between a manager's wish list or paper portfolio and the actual executions of buy and sell orders. In effect, Plexus calculates the difference between the ideal portfolio and the real portfolio.

In order to use the Plexus service, managers must record in real time the prices of their paper portfolios and their actual transactions. "If you can get the information recorded about intentions and then look at realizations relative to the intentions, you could find out something that you can't otherwise," says Wayne Wagner, Plexus's founder. "This is quality control over the investment management process," he adds.

CONTROVERSIAL CALCULATIONS. Institutional investors say there are pros and cons to each method. Pension sponsors like the Abel/Noser Corp. transaction report because it's easy to implement. The master trustee sends a tape of all the pension plan's stock transactions to Abel/Noser, where a computer compares the average trading costs of each manager to the other managers for the same pension account.

But many buy-side traders and portfolio managers, such as IRC's Bradley, say that Abel/Noser is a meaningless statistic because it can be gamed--buy-side traders can change the way they trade to look good against the VWAP.

A trader starts buying stock until the price goes above the high of the day. "When the price he's paying gets above the high of the day, he stops because he's not going to get the VWAP," says Bradley, who oversees trading for the $22.5 billion Twentieth Century mutual funds. "The trader looks great against the transaction cost measurement, but he may still have tens of thousands of shares to buy. So the next day, the trader starts buying the stock on the open, aid it goes up another two points again. He looks great on the transaction costs, but the stock's now $3 higher. So has he really done a good job for his shareholders?" asks Bradley.

In response to this criticism, Stanley Abel, chairman of the board of Abel/Noser Corp., says the argument that the system can be gamed is fallacious. First, a trader is handling trades for four or five accounts, and odds are that a sponsor is measuring the costs of only one of them. "So a trader doesn't know which orders he should game," says Abel. Second, traders wouldn't last long at an investment firm if they defied or significantly delayed the manager's instructions to execute an order because he was trying to beat the VWAP, says Abel.

The average pension fund measured by Abel/Noser loses 2 cents a share to the VWAP. "So they're not very successful at gaming," says Abel. "But if someone can do it and beat the volume weighted average price, be m)i guest," he says. "That's what good trading is all about."

Meanwhile, Joseph Lakonoshok, Karnes professor of finance at the University of Illinois at Urbana, faults Abel/Noser with looking at every trade separately. One should examine a whole package or sequence of trades because money managers will trade over many days before they establish a position, he says.

Supporters of Plexus praise it for being the only service to measure opportunity cost, which many contend is the most expensive component of trading, but complain that it is too data intensive. "A lot of people are not automated on their trading desk, and if you don't have a database that captures all these decisions, how are you going to know when you cancelled an order, when you changed the price parameters or when you went from a market order to a limit order?" asks Bradley. "It's like having a video camera on your trading desk," he says.

In response to these complaints, Wagner says, "We don't make it complicated on purpose. We deal with a lot of subtleties and things that are difficult."

Because there is such controversy over which method is valid, some managers use one or more of the services to confirm what they're doing; some even create their own.

The California Public Employee Retirement System (CALPERS), the nation's largest public pension fund, which runs $19 billion in index funds, subscribes to the Abel/Noser study. While aware that some people disagree on the volume weighted average price, Carl Wilberg, principal investment officer at CALPERS who oversees trading for equity index funds, bases his faith in Abel/Noser on the high percentage of New York Stock Exchange (NYSE) trades the service covers. "You're comparing it with a fairly big universe," he says. CALPERS compares its internal index fund with the universe of trades on the NYSE in addition to trades executed by its 19 external equity managers.

Aware of the concerns about Abel/Noser data, Shell Oil's $9 billion pension funds took Plexus on as a second service. "We wanted additional corroborative evidence," says Dave Zellner, director of equity investments for Shell's retirement plans. While it's been time-consuming to capture and collect the data, every basis point saved translates into $150,000 in savings for the plans. Shell's been saving 10 basis points in transaction costs each year-keeping $1.5 million in the fUnds' coffer. Up until three years ago, before Shell's external managers began

to use lower-cost brokers and proprietary trading systems, the savings from transaction costs on all assets were in the three to five basis-point range.

A DIFFERENT STRATEGY. What has Shell done differently to lower its transaction costs? First, whereas before it mainly used traditional brokers, now it uses passive trading networks, such as Posit, The Crossing Network and AZX. Second, it utilizes direct access brokers on the floor of the NYSE, bypassing upstairs brokers, to get a break on commissions. Third, because Shell restructures its portfolios once a quarter, the pension funds refined the optimization process into two passes: one for low-transaction hurdles; the other for a much higher hurdle because these stocks will begin to incur market impact, says Zellner. It also began to trade more aggressively for 5 percent to 10 percent of those stocks that screening mechanisms indicate should be executed earlier.

SEI subscriber Bradley credits that service with allowing him to approach the marketplace in terms of predictability of trading costs. "It's allowed me to break down what in my business seems to be the higher-cost business and therefore who the best brokers are for difficult situations," he says. As a result of a study done by SEI, comparing traditional brokers to electronic alternatives, "Instinet has proven over a three-year period to be an extremely low-cost provider of service for the firm's most difficult--small cap and high volatility--stocks," says Bradley.

Rather than pouring time and money into an outside service, General Electric Investment Management (GEICO) is developing its own in-house transaction-cost analysis system, using Merrin Financial Trading system to capture all the firm's orders and prices and Bridge Data for the time and sales of all exchange trades. Because GEICO is very technology oriented, "we can monitor trades from the time we get them on the desk to the time we complete them," says Damien Maroun, head trader at GEICO. The system will also monitor the actual executions and the reporting back from brokers.

GEICO's system compares the price at the time the trade reached the GEICO trading desk to the price at the time the order was completed as compared with the time and sales on Bridge. This allows GEICO to figure out the average weighted price, which it compares to its own prices. "If I bought a stock at a lower average price during that time frame, I got positive performance," says Maroun. He'll also be able to ask the system what percent of the daily volume comprised GEICO'S trades.

While stating that Plexus is probably the most "genuine" service among existing ones, Maroun says the cost is pretty high. Although GEICO'S head trader has the technical requirements for using Plexus, he also asks, "Do we really need that type of in-depth study or analysis of our trading?"

Although each method has its bias, pension sponsors and traders use the trading-cost services as tools. However, "the bottom line is delivering good investment performance. You need tools to do that, but none of the tools supersede the strategy, the philosophy or the guiding principals of the investment firm," says Bradley, adding: "What investment managers would not want to do is change their investment style to look better on the transaction cost side."

Danger Ahead! How To advoid Trouble$pots: The key is skepticism and the discipline to measure continually
VARbusiness , Page: 137 , Dec 15 1996

A few years ago, a VAR was enjoying success with a small staff. One day, the business manager fell on hard times and walked out with the cash. The business collapsed. Another VAR lost his business when he couldn't collect from a key

client that went bankrupt. Dramatic? Yes, but also true. Those are real situations that I've encountered as a VAR, consultant and CPA. Businesses do fail. You can prevent such disasters if you take action now to head off future crises.

All VARs strive for financial success by taking risks. Business risk has both financial components, such as age of receivables and cash ratios, and operational components, such as customer satisfaction and vendor relations. What are some typical risks? Customers can go bankrupt, and money paid to vendors might never be recouped.

Subcontractors sometimes overstate the level of completion, and trusting VARs end up paying twice for work. Ambiguous contracts (or "deals on a handshake") could result in makeup work being performed for no fee.

To avoid financial disaster, know what's happening with your money. Sound simple? Actually, it takes specialized knowledge that most VARs either lack, or are too busy to apply.

Finding Your Danger Zones

In VARBusiness' State of the VAR Market survey, typical VARs reported fewer than 10 employees and annual median revenue of $1.2 million. That indicates success. But typical VARs do fail, in part because cash flow is a continual problem in small businesses.

-Average days payable. Your first measure of financial stability is average days to pay. Are all your accounts paid in full within 30 to 60 days? Or do you have outstanding overdue balances that trail into the past? An occasional dispute may not ruin your credit rating, but ability to pay is measured by history.

To calculate your average days to pay, multiply each invoice outstanding times the number of days since its date. Divide by the total dollars payable. If your average is less than 45 days, you are a candidate for a loan. If you pay all invoices on day 30 (assuming net 30 terms), you're outstanding.

A typical business might regularly pay 30 to 60 days from the invoice date, with exceptions for large orders. A new VAR might begin paying within 30 days until cash balances become low. Danger! Gradual slippage in payments can result in

a lowering of your credit rating. Sudden problems, related to one or two large accounts, can be equally damaging.

-Quick ratio. To calculate your quick ratio, divide cash and equivalents by total assets. (Remember the balance sheet formula: Equity = Assets - Liabilities.) Cash equivalents include instruments such as traveler's checks or certificates of deposit that can be immediately converted into cash.

Danger! If your quick ratio becomes smaller and smaller, you're at risk. Even if your receivables and inventory grow, you still cannot rely on future cash flow. You need to have cash available to pay all expected bills in the current month and to cover any exceptional costs.

-Current ratio. Divide current assets (cash and receivables) by total assets.

Danger! If your receivables won't carry you through six months of operation, you're in trouble.

During growth periods, maintaining your quick and current ratios will be a challenge. Liabilities due before payments from customers should be counted as part of payables. You constantly need to project future expenses and balance resources to maintain enough cash. An unexpected disability, unemployment claim or dispute with a customer can tax the best of businesses.

How Bankable Are You?

The best way to avoid fiscal calamity is to think like a banker. Bankers know the requirements for a loan: stable cash flows and future revenue. They ask for financial statements and calculate financial stability by applying general measures. You compete for their money not only with other VARs, but with the rest of the business community as well.

Before applying for a loan, ask, "Are my financials strong? Am I calling the bank when things are good? Or am I in a crisis?" If you're in a crisis, this may be the time to get out the red pen and reduce new ventures or expenses. A loan may be the second step, not the first.

Here are some of the financial ratios bankers consider when measuring creditworthiness. Use them to measure your own financial health.

-Debt-to-equity ratio. Measure all long-term debt (including personal loans used to finance the business) and divide by total equity. Danger! A debt-to-equity ratio of 50 percent or higher is troublesome. High percentages should be temporary, and revenue should be generated to pay off loans first.

-Days sales outstanding. This ratio is Receivables /(Sales /365). Once the ratio is derived, you can ask tough questions, such as: Are sales increasing or decreasing? Are receivables increasing or decreasing? For each customer or client, what is this ratio? Do a small number of customers dominate the receivables? Are measures for very large customers changing?

-Profit margins and other profit measures. Profit margin is the percentage of income divided by revenue. In the State of the VAR Market study, VARs' gross profit margins averaged 31 percent, while pretax operating profit averaged 18 percent. Danger! If your numbers are significantly below these, or in decline, you need to focus on the more profitable parts of your business.

-Return on equity. ROE is the percentage of net income (after taxes) divided by total equity. This measure relates equity to the profits it generates. Highly successful businesses have 25 percent-plus ROE, but 10 to 20 percent is good. Danger! If your numbers are significantly below this, or if the trend is down, watch out. You may need to turn to outside investors or banks to grow the business, and they may demand significantly higher ROE than you are generating. They could demand you make unpalatable cuts in your operation, such as slashing the payroll.

The Vendors' View

Software and hardware vendors base expectations on their historical clientele. They have a profile of a "typical VAR," which they use to measure potential customers. To prepare the profile, vendors look at your total balance sheet and income statement. They calculate cash flow, quick and current ratios and other measures. They look for signs of weakness or history of problems. They get average days to pay from Dunn & Bradstreet or TRW.

They ask for references, seeking a stable client base to leverage. They look at sources of income, seeking VARs that are positioned to stay in business. They also look at operational issues, such as where your revenue comes from.

-Revenue from software and services. You should calculate this before completing an application for VAR status. You must fulfill the vendors' expectations in order to gain acceptance and support from the vendor. Danger! If software sales and services do not generate sufficient revenue, customer support could become an activity a VAR cannot afford. According to the State of the VAR Market study, the typical VAR gets 35 percent of revenue from services/support, and 31 percent from software.

-Revenue per employee. A well-staffed VAR will have high revenue per employee. State of the VAR Market research indicates that the typical VAR has $130,000 revenue per employee. Danger! If your numbers are significantly below this, you could be overstaffed. If your numbers are low, outsourcing certain activities to consultants could be the answer.

Fixing the Problems

The key is measuring your business over time. The first step is to enter all your revenue and costs into an understandable accounting package. Second, be consistent. Measure at the same time with the same method. Track the value, location and condition of inventory.

Measure continually. Comparisons are helpful. It takes at least a year or two to determine business cycles or trends. Improvement or degradation are measures in themselves. Be dispassionate. Ratio analysis is the comparison of key figures in financials. Any warnings should inspire four more questions: "Why is this measure usually a concern? Why has this measure raised a warning to my business today? Will this measure be remedied by itself? What should I do to correct it?"

Now measure, keeping in mind that ratio analysis and financial measurement cannot be learned in one day. The goal is to see the way this work connects to real problems in your business, especially cash flow. Cash flow is intuitive if you

ask, "Did the money in my bank account change?" Cash flow statements ignore unpaid bills and unreceived payments, as well as depreciation. Many small businesses use the cash basis for profit and loss statements.

To help you get a handle on how this works, let's look at a hypothetical example. Young Huns Computer Services, a typical VAR by employee count and sales, provides a combination of hardware and software, along with consulting services. It uses subcontractors to perform work for which no in-house expertise is available.

Young Huns invoices NPQ for a suite of accounting modules and installation. The payment is not received until Jan. 15. Meanwhile, Young Huns pays for the software on Dec. 17. The company's cash flow is shown at the lower left of this page.

Note that if Young Huns needed to pay another large invoice, there might be a cash squeeze. Receivables are good, but they're not cash. Cash flow can be disastrous for VARs.

Cash-flow ratios break down into two types: sufficiency and efficiency. A major cause of small-business failures is inadequate capitalization, so sufficiency, or adequacy, is the key to continued success. Let's look at how it works.

Cash Flow Adequacy = Cash from Operations - (Long-term Debt Payment + Asset Purchases + Dividends Paid)

To determine cash flow adequacy, measure the cash from sales less cash paid for expenses. The measure is designed to ask whether there is enough cash to meet capital demands. It asks how quickly debt is being retired and how much the business must invest in assets and in dividend payments. The three items interconnect, but each will affect cash requirements.

Following are questions which arise from the cash flow adequacy test:

1. Can the cash generated by the business finance the needs of the business? Are other sources of income necessary? Is debt increasing?

2. Are asset purchases being financed totally or to a greater degree than in the past?

3. Are outside investors getting sufficient return on their capital? (This includes family members and friends.)

4. Are inside investors getting paid?

5. Are inside investors increasing their investment with no corresponding increase in return?

Danger! Problems occur when long-term debt is high and revenue is low. During such periods, VARs often survive through personal guarantees or family funds. Having enough cash to cover primary cash requirements (assets, debts and dividends) is not typical, but it is healthy.

Cash flow can measure satisfaction as well as financial stability of customers. Running regular credit checks on large customers may not seem trusting, but it is warranted in some cases. You should look hard at future cash flows. A banker evaluates cash for sufficiency, low variability and high certainty. Erratic cash flows require attention to receivables and satisfaction with work. Also, look at cash reserves. If your cash merely covers a month or two of expenses, you need to obtain more capital to fund operations.

It Can't Happen Here

Getting your financial house in order? Here are some general principles of sound financial management.

-Separate responsibilities. Those guarding assets should not handle records. This is a fundamental of financial control.

-Be skeptical of financial reports that are generated internally. Ask questions.

-Find a good accountant. Ask for a small business audit or review.

-Measure a few ratios monthly. When something seems amiss, look for answers.

-Learn about financial analysis. Get a good text on financial management. Find a course. Also, talk with your accountant. Good accountants want to hear that their clients are learning about their own businesses. Pay attention to the financials and use them to measure the business.

When an action is recommended, go ahead and act. When information is lacking, continue to search. Manage for effective financial control of your operations. And

manage your relationships, including your customer base and business partners. Danger! Never assume that prior successful operation is insurance from risk. You still could encounter the big crisis.

Attend to the business issues raised by your ratio analysis-and watch out for danger signals. You'll find ways to improve beyond what's obvious.

The Typical VAR

Despite profit pressures from all sides, most VARs achieve acceptable profit margins.

No. of employees (median) :9

Years in business (mean) :9

Annual revenue (median):$1.2M

Gross profit margin (mean):31%

Pretax operating profit (mean):18%

Average age of receivables:35 days

Revenue Vs. Profit In 1996

VARs can boost their profits by emphasizing more profitable service and support.

Services/consulting

Revenue: 35%

Profit: 42%

Hardware, including peripherals and accessories

Revenue: 35%

Profit: 27%

Software developed by your company

Revenue: 19%

Profit: 21%

Prepackaged software

Revenue: 12%

Profit: 10%

Cash Flow

Statement for Young Huns, 12/96

Transaction: Invoice to NPQ (12/1/96) [not received]

Amount: $150,000

Transaction: Other invoices in 12/96 [not received]

Amount: $350,000

Transaction: Payment from NPQ on 1/15/97

Amount: $150,000

Transaction: Payments from other customers in 12/96

Amount: $240,000

Transaction: Invoices from other vendor/subs in 12/96 [unpaid]

Amount: $200,000

Transaction: Payment to vendor for NPQ's software in 12/96

Amount: $90,000

Transaction: Cash paid to other vendors and subs in 12/96

Amount: $100,000

Transaction: Net cash flow from operations (12/96)

Amount: $50,000

Dialog® File Number 16 Accession Number 4735853

Truth be told.(traders' backtesting of trading strategies)
Stridsman, Thomas
Futures (Cedar Falls, Iowa) , Volume: 28 , Number: 1 , Page: 46(3) , Jan 1999
Traders gain assurance on the soundness of their investment strategies by backtesting them on past market performance. By applying their theories on historical data, they are able to see if their predictions match the actual market outcome. To do this, they make use of a software with backtesting features and gather relevant data for the computations. Such conditions are met by the Ratio-

Adjusted Data. This contract has the advantage of assigning equal percentage weights to all trades.

All your system testing software really is telling you is how your trading strategy would have fared in the past had you only been able to trade it. With this new way of analyzing and backtesting your trading strategy, you will learn how your trading is expected to fare in the future, no matter what path the market will take. Every trader, whether discretionary or mechanical, has a need to backtest his theories and trading strategies on historical data to gain the confidence needed to actually trade them in read time. To do so he will need two things. First, he will need the appropriate software, with some type of backtesting capability that can output all the relevant data needed to evaluate the strategy tested. Second, he will need the right. type of data that will allow the software to do all the necessary calculations and spit out the correct answer.

To achieve all the above, you will need to use a new type of data, called Ratio-Adjusted Data (RAD). (For a more thorough discussion on when to use a specific adjustment method, see "Data Pros & Cons," Futures, July 1998.) This is because when the market moves higher or lower, or when two markets are trading at different levels in dollar terms, it is logical to assume the average daily point or dollar move also will differ, while the average percentage move will stay approximately the same. (Also note that methods used on futures in this article also should be used when analyzing stock- or mutual fund-based systems if you're comparing different priced stocks or funds with each other - especially when stock splits are involved.) "The same difference" (below), illustrates this point. During the October 1987 stock market crash, the actual nearest S&P 500 futures contract over the entire month fell 45.6%, or 152 points, from a high of 333 to a low of 181 (point A). However, using a point-based back-adjusted contract, this 152-point move will only translate into 30.1% (point B). But by using the new RAD contract, this move will again be 45.6% (point C).

As a comparison, the S&P 500 fell 281 points from July 20 to Oct. 8, 1998, and by 176 points during the month of August 1998 alone. That is greater in terms of

points than during the October 1987 fall, without ever coming close to the same panic we had 11 years ago. And while there was some talk about a coming crash - the keyword here is "coming" - because of these relatively large point-based moves, it would have taken a decline of more than 500 S&P points to equal the crash of 1987 in percentage terms.

In fact, it can be proven that, despite the most recent market turmoil, the stock market volatility measured in percentage terms actually has decreased slightly during the last 15 years.

It's rad, man

Another reason for why it is better to use Ratio-Adjusted Data is that it gives an equal weight to all markets when you build and trade a portfolio of commodities. For instance, the left chart in "How to combine" (below, right) shows the combined equity curve from trading a standard type breakout system on three different markets, the S&P 500, Japanese yen and Crude oil, from Jan. 1, 1990, to June 30, 1998. This equity curve doesn't look bad, with a final profit of close to $900,000 and fairly modest draw-downs. We've all seen this type of equity curve from various system hawkers who want us to believe they have come up with a system that can be traded with excellent results on almost any market.

What can't be seen, however, is how much each one of these three markets actually contributes individually. The story behind this chart is that the Japanese yen alone contributes more than $930,000, crude oil a mere 82,000, while the S&P 500 actually manages to lose about $50,000. In fact, thanks to the nice trendiness, fairly low volatility and a relatively high point value for the yen, this is the truth behind most breakout type systems that trade the yen.

Now, look at the right chart in "How to combine," which shows the equity curve over the same time period, for the same system and the same markets, but this time the profit from each trade is measured in percentages rather than dollars. It's quite a different story. The reason for this is with percentages you give every market an equal weight, which makes a 1% move in crude oil worth just as much as a 1% move in the yen. And it just so happens, there have been a couple of

huge moves in the crude oil market over the years, but with the industry's obsession with dollar moves, any huge move in the Crude oil will drown in the ripples from the yen. The way to catch these moves is to do your homework on Ratio-Adjusted Data and then scale up the number of contracts traded to make the dollar risk equal between markets.

Every trading strategy, whether applied to one or several markets, (TABULAR DATA OMITTED) should incorporate some type of stops to insure against large losses. Again, it is paramount that you use percentages. This is especially true in a market like the S&P 500 that has been trending heavily in one direction over an extended period. For instance, when we traded the S&P 500 with a basic breakout model, a $5,000 money management stop and a $10,000 trailing stop, only six out of 11 trades were stopped out from 1988 to 1989. For the period 1996 to 1997, 31 out of 32 trades were stopped out. At the same token, these stops rarely will be hit in the crude oil market.

However, to use the RAD contract, you also will have to do more manual system testing outside of your technical analysis package. The reason is the RAD contract also requires a whole new set of calculations that is not yet available in any standard retail software package.

The top table in "Comparing apples" (above) shows what such a group of calculations can look like when hypothetically traded on the S&P 500 from Jan. 1, 1995, to Nov. 11, 1998, compared to the obsolete set of numbers offered by TradeStation shown in the bottom chart. Although the markets and systems are the same and the only thing that differs is the method of calculating the continuous contract, the results are quite different. Let's compare and explain some of these differences. If you're connected to the Internet, you can download all the spreadsheets used for this article at www.futuresmag.com/industry/downloads/downloads.html. The TradeStation code for this system can be found on page 44 in "Working in a coal mine."

First, to calculate the net profit for all trades with the old point-based back-adjusted contract, simply deduct the gross loss from the gross profit and you will

end up with $124,188. To calculate the net profit for the RAD contract is a little bit more complicated, but basically a gross loss of 31.74% and a gross profit of 155.81%, no matter in what order these profits and losses occur, will leave a net profit of 74.63%. To put this into dollar terms, multiply 0.7463 with your most recent market value and the point value in dollars for that market. In this case, you'll end up with an estimated net profit of $212,039 in today's market value. Considering we're using the same system on the same market over the same period, there is quite a difference between a net profit of $212,039 and $124,188. How do we explain this difference? One reason is in the old way of doing it, we also deducted $75 for each trade at the time for that trade in slippage and commission, while no such deduction was made for the RAD contract, so far. Nevertheless, this will explain only $8,625 of the difference.

Another reason is that this is a winning strategy, and because the RAD contract allows us to give each trade an equal percentage weight, a 2% winning trade when the market was trading around 600 will have an equal impact on our bottom line as a 2% winning trade today when the market is trading twice as high. For example, the two X-marked bars in "Nothing but trades" (right) represent the same trade but with different underlying data. In the top chart, this trade resulted in a 2.76% profit, which with today's market value would equal approximately $7,900. That is a whole lot more than the dollar value of $4,375 for the same trade in the bottom chart. And again, because this is a winning strategy, these differences will add up over time. But this is still not the most important difference.

The most important difference lays in the fact that the $124,188 is the dollar amount you would have earned had you been able to make the last 115 trades this system hypothetically would have signaled on the historical data set, while the $212,039 is the dollar amount that you can expect to make on the next 115 trades, provided the system continues to hold up and the market continues to trade at these levels.

The same reasoning also applies to all other numbers we use when we're evaluating a trading strategy or when we are comparing strategies and markets with each other. When you use the point-based back-adjusted contract and the old way of evaluating your strategy, the only thing all these numbers can tell is how much you could have made. But with the PAD contract as a base, every single number shows what you can expect to win or lose in the future. (For stocks, you still can use the actual split-adjusted data.)

Let's take the average trade as an example. With the point-based back-adjusted contract as a base, the average trade value does not take into consideration where and when all these trades were made, nor does it take into consideration where the markets currently are trading. The RAD contract doesn't take where and when into consideration either, but that's only because it doesn't have to because it's dealing with percentages. No matter where the market has been trading or where it will trade in the future, and provided the system still will hold up, we can expect to make 0.49% of the market level at trade entry per trade, which in today's market equals $1,381 (or $1,306 if we want to deduct $75 to compensate for slippage and commission). If the market trades higher, the expected dollar value of the trade will rise and if the market trades lower, the expected dollar value of the trade will fall, but if our system is robust, our 0.49% will hold.

An interesting special case is the drawdown. Unfortunately "Comparing apples" does not provide us with a good example to discuss this, but how many of us haven't heard the adage "Your worst drawdown is still to come." While this is a good axiom to live by and equally as true for whatever type of data you are using or whatever profit testing regimen you adhere to, using the old way of doing it, however, will make you more likely to experience more and larger negative surprises.

Why? Because of the same reasoning as in the trade comparison case above. Because of a fairly low dollar value at the time for its occurrence, a huge drawdown in percentage terms may well be hidden within your system results

and not show up again until much later, when the markets are trading on totally different levels and you have real money on the line.

Trading Simulator. (Software Review) (One of two financial trading technical analysis software packages evaluated in 'Packages offer stage for screening programs') (evaluation)
Campbell, Mary V.
Wall Street Computer Review , Volume: 5 , Number: 6 , Page: 49(3) , March , 1988

Technical Trading Strategies Inc's Trading Simulator is a technical analysis software package for second-guessing futures trading advice, cross-check personal trading strategies, or learn about the futures market. Trading Simulator uses the Market Profile study of the Chicago Board of Trade futures. Trading Simulator has a graphic display showing current profile and recent price history on a selected contract, a menu to enter trade data, and a history display showing closed trades and profit or loss. Trading Simulator displays prices through time at user-defined intervals. The display is particularly effective with color monitors. Trading Simulator costs $395 and runs on IBM PCs and compatibles with 256 K RAM and two disk drives. MS-DOS 2.0 or higher is required.

Trading Simulator, Technical Trading Strategies Inc. 4877 S. Everett Street, Littleton, CO 80123, (800) 648-2232. $395 introductory price; the software runs on IBM PCs or compatibles with a hard disk or two floppy disk, 256K, and DOS 2.0 or higher.

TRADING SIMULATOR IS DESIGNED to provide second-guessing for futures traded on the Chicago Board of Trade (CBOT). The package allows an investor to trade against months of price history displayed on a personal computer screen tick-by-tick. It allows the alteration of the time interval for the ticks to hundreds of times normal speed, making it easy for money managers to apply advice generated by their other programs as the price display moves through time.

Trading Simulator uses the Market Profile study developed by Peter Steidlmayer of CBOT. Although the manual provided with Trading Simulator is adequate for its use, novice traders will want to obtain a CBOT Market Profile manual which is sold in many large bookstores. This manual enables a novice to develop an

adequate understanding of Market Profile before using Trading Simulator to test trading strategies.

The system is copy protected and can only be installed three times but is otherwise easy to set up. The data files available on an investment manager's system are displayed on the screen for easy selection.

Before beginning a session or at any time while the package is running, the default for the time required to playback a day's session can be changed. For U.S. Treasury bonds, a setting of one would require six hours to play back, 10 would require 36 minutes, and 200 would require two minutes. The time period for the determination of time/price opportunities (TPO's) is initially configured as 30 minutes.

Graphic Display

The essence of Trading Simulator is a graphic display showing the current profile and recent price history on a selected contract, a menu to enter trade data, and a history display showing closed trades and profit or loss. The $395 purchase price of the system includes some data files, including soybeans, the October S&P and October bonds. Additional month-by-month data is also available for most other markets from Technical Trading Strategies or can be downloaded day-by-day into a computer from an on-line service.

The graphic analysis of price tickmarks is especially effective on a color monitor. The market profile for the current day unfolds tick-by-tick with letters representing each time period during the day. The TPO and tick volume value area can be interpreted easily from the display. The system displays a running count of time/price opportunities, the ticks above and below the point of control, and TPO's above and below the point of control. The open and last price are displayed in reverse video.

Trading Simulator automatically condenses the prior day's data in three bars to the left of the data for the current day as the program continues to add data to the display. Open-high-low-close data is shown on these bars along with the TPO value area, and the tick volume value area. When the prior days prices are off the screen, the program uses up or down arrows to indicate their existence. Contract expiration and the time at the exchange is also displayed at the bottom of the screen.

Menu Selection

The main menu offers several options including a selection for trading options, printing, changing speed, restarting the display of tickmarks, and an exit to DOS. The trade menu will be used the most frequently by an investment manager testing trading strategies.

The selection of "Trade" from the main menu displays a lower level menu with specific trade-related options. Entering an "S" or a "B" indicates placement of a buy or sell trading order. The default is entering a trade for one contract but the number of contracts traded can be increased easily.

Trading options include placing the order at market, which will execute the trade immediately if the order is confirmed. Trading Simulator will delay an immediate order by the time slippage specified under the default and place the order at the worst of the next three ticks to make the simulation as realistic as possible.

Placing a limit order to trade at a specific price, or better, is another option. The stop order option will trade at the market when the user selects a price. When the stop order option is selected any buy orders entered must be above market and sell orders must be below the market. The last trading option is to choose to trade at the close. Results of the trading transactions entered can be monitored through the history option.

Selecting history from the trade menu will show all the closed trades. Cumulative profits are also displayed taking into account the day and overnight commissions as established in the default menu. Options are to display the history report on the screen, write it to a file, or print it. Any open orders remaining at the end of the day will be cancelled.

If the user wants a way to second-guess the futures trading advice generated by one of these programs or to cross-check personal trading strategies, Trading Simulator may be a good option. It is also a good choice for someone wanting to learn about the futures market from the safety of their computer screen without the emotional interplay of the pit.

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Slippage Costs in Order Execution for a Public Futures Fund
Greer, Thomas V.; Brorsen, B. Wade; Liu, Shi-Miin
Purdue U; OK State U; Purdue U
Review of Agricultural Economics , Volume/Issue: 14 2 , Page: 281-88 , July 1992
Document Type: Journal Article

Abstract: The trading records of a commodity futures trading fund were examined to determine slippage on the fund's futures market transactions. Slippage was about double that found in previous research that included all traders. Slippage was largest on days with large price movements and for large orders. Funds appear to trade at times when the market is moving quickly and brokers have trouble filling orders at the target price. Since funds use similar systems, as a group they may be responsible for increasing intraday price movements because a large number of funds want to trade at the same time.

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Moving target
Doyle, Andrew
Flight International , Page: 26 , May 21 1997

Software problems are delaying the completion of the world's most advanced air-traffic-control centre

ANDREW DOYLE/SWANWICK

THE UK'S GBP350 MILLION ($570 million) Swanwick en route air-traffic-control (ATC) centre between Fareham and Southampton, Hampshire, is billed by National Air Traffic Services (NATS) as the largest and most advanced development of its kind in the world.

It is perhaps not surprising, therefore, that this ambitious project has encountered its fair share of teething troubles, albeit relatively late in its seven-year development programme. Up until the middle of 1995, development of the New En Route Centre (NERC) had been on schedule - the new building had been completed on time, the ATC simulation programme for controller training was ready to be implemented, and all the computer hardware and support equipment had been installed.

The problems, which have already delayed the planned opening date of the NERC by 15 months, to March 1998, stem from the unusually high number of 'bugs' which prime-contractor Lockheed Martin is having to remove from the 1.82 million lines of software code at the heart of the system.

The software is designed to satisfy the 3,300 'functional requirements' for the 203 operational and engineering workstations at the Swanwick centre. The correct functioning of these consoles is critical if NATS is to meet its goal of providing an immediate 40% increase in en route airspace capacity over England and Wales, while 'maintaining or enhancing' existing safety levels.

MILLION LINES OF SOFTWARE

Around 1 million lines of software were written specifically for the NERC, initially by IBM staff who had not previously worked on an ATC project. NATS believes that this contributed to the high level of errors, coupled with uncertainties for the workforce as IBM's Federal Systems division was acquired first by Loral, then by Lockheed Martin.

According to Dr John Barrett, London area programme director at NATS, the average number of defects per 1,000 lines of software code expected to occur in a project of this size is between eight and 12. 'The overall average we have ended up with has been closer to 15 defects per 1,000 lines of code,' says Barrett. 'We are clearing them at a rate of 500 per month ... there are still a lot of defects to remove,' he adds. 'We know where all the bugs are.'

Based on these figures, the total debugging process for the 1 million lines of new code will have taken around 30 months to complete.

Meanwhile, during initial trials, the commercial off-the-shelf portion of the software seemed to be trouble free, and this was successfully integrated with the new software on a small network of workstations. When Lockheed Martin engineers attempted to get the system running on the full-scale network, however, it became dear that the software could not operate reliably.

'The system worked on 30 workstations, but when we tried to scale it up to 150 workstations we had difficulties,' says Barrett. 'It wouldn't scale up because of the very large number of latent defects.'

The debugging must be finished by June if the planned operational date of March 1998 is to be met, to leave enough time for controllers to be trained for the new system. Barrett is confident that the June deadline can be met, however, with the system now '... 98% there, in terms of functionality', he says.

Assuming that the software is running satisfactorily by June, the controller training programme will then become the 'critical path', says Barrett. 'The decision on the point at which operations start will be determined by the success of the training programme,' he adds.

Any further delays in the already tight timetable will result in the opening date being pushed back until at least October 1998, however, to avoid risking interruptions to the northern-summer schedules during the switch-over.

'We are simulating every bit of the operational system that they [the controllers] will see,' Barrett says. Experienced air-traffic controllers are being used to carry out 'system usability trials', fine-tuning aspects such as the sizes and colours of symbols on the screen, and the functionality of the graphical user interface. It will also be possible for individual controllers to tailor the format of their display according to their own preferences.

Each console, or 'sector suite', consists of three workstations with a 510 x 510mm Sony colour monitor, which displays primary data and the radar picture. Secondary information is shown on a smaller, adjacent screen.

Each airspace sector will be controlled by a two-person team, consisting of a tactical- and planner-controller, supported by an assistant. Co-ordination between sectors will be achieved through the electronic exchange of flight data. The planner will use electronic flight strips, although the tactical controller will initially use conventional paper strips.

TRAINING PROBLEM

'If [the system usability trials] throw up any major issues, then we are going to lose time,' says Barrett. The problem is that the training programme cannot be fully implemented until the controller interface and functionality accurately

reflects the way that the system will operate when the centre goes on line. While the software and user interfaces are being tested, minor changes are still being introduced.

'We have to have a system that has had an established period of integrity,' says Gordon Doggett, centre manager for Swanwick. In the meantime, a training and development simulator, which consists of a small number of operational consoles, has been set up to allow initial training of instructors to begin.

The full training programme will be carried out in three phases, with the first ending in June, the second running between August and October, and the third between October and December. Each controller will take 17-21 days to complete operational conversion training. Swanwick will initially be manned by 360 civil and 27 military air-traffic controllers, backed by an operational support staff of 140.

George Dasher, managing director at Lockheed Martin Air Traffic Management, says that, despite the delays, the US company still has 'a very healthy relationship' with NATS.

He adds: 'It has not been an enjoyable last year for the team, but we are now back on track towards making the delivery. All of the hardware and software is here.' Dasher says that he has over 450 staff working on the Swanwick project, of which 275 are still stationed in the UK at the centre itself.

NATS signed a fixed-price contract worth GBP200 million with Lockheed Martin for the Swanwick project, resulting in the US company having to bear the brunt of the additional costs of the delay. Barrett confirms that, despite several amendments made to the contract with Lockheed Martin (such as a request for some additional workstations), the cost has '... grown very little. We are within budget for the systems we set in the first place', he says.

WEST DRAYTON FALLBACK

NATS is, however, having to meet the estimated GBP9 million additional cost of keeping the London Area and Terminal Control Centre (LATCC) at West Drayton, near London Heathrow Airport, operational until Swanwick comes on line. As a stopgap measure, NATS has had to upgrade the LATCC to cope with the ever-increasing number of flights using the airspace above England and Wales. Doggett says that NATS could '... just about cope, if we had to, up to 2000' using the West Drayton site.

The LATCC may have to cope until close to that date if, as some sources dose to the project suggest, a further slippage into late 1998 or early 1999 is likely. Lockheed Martin, for its part, will be hoping that NATS can avoid having to announce any further delays to the Swanwick project, with the US company leading a consortium which has already been named as the preferred bidder for the UK's planned New Scottish Centre at Prestwick, Scotland.

Principal Blind Bidding In Portfolio Trading
Traders , Volume: 11 , Number: 143 , Page: NA , Sept 1998

Planning to bid for an institution's portfolio? A profitable way to utilize capital? Don't be fooled. Every year, broker dealers enter the business and soon quit when losses mount. Only the strongest survive. Among them is D.E. Shaw Securities, one of Wall Street's top principal portfolio-trading firms.

The New York-based broker-dealer subsidiary of D.E. Shaw & Co., which started trading portfolios as a principal in the early 1990s, now averages four principal trades daily, and this year handled one trade with a value of about $1 billion. (A typical principal portfolio trade is valued at only $50 million.)

D.E. Shaw Securities regularly bids "blindly," using quantitative trading technology. But, explains Mony Rueven, managing director in charge of portfolio trading and the firm's 30-strong U.S. institutional equity group, portfolio trading is not for amateurs.

Q: D. E. Shaw Securities is well known as a quant shop that employs mathematical models in trading. So why is it handling portfolios, or so-called equity baskets?

A: Trading portfolios on behalf of institutional clients fits in very well with our other dealing activities, where we make markets or provide liquidity in equities, convertible bonds, warrants and equity derivatives, both in the U.S. and overseas.

It is also a business in which our quantitative-trading and risk-management expertise gives us a clear competitive advantage. It is no secret that sophisticated institutional investors have analyzed their holdings as portfolios for a long time. Only in the last few years, however, has the buyside begun to see the often substantial benefits of trading lists, or portfolios, rather than individual positions.

D. E. Shaw Securities, for example, often provides institutional clients with analysis to help them decide how they should trade particular lists of stocks as a portfolio versus individual positions, as a principal versus agency positions, and so on.

The institution has a number of choices: principal basket trades, agency basket trades, incentive agency trades, basis trades and EFPs [exchange for physicals]. While they're sometimes used to satisfy special trading needs, institutional investors most commonly use basket trades to invest new cash flows, change asset allocation and rebalance portfolios.

Q:Let's focus on a principal basket trade. Provide an example.

A:Say a money manager is rebalancing his portfolio and has $50 million of equities to buy, and $50 million of equities to sell. He'd basically have two choices about how to execute this list. He could execute it conventionally, doling out individual trades on an agency basis to brokers. The brokers would work them on the floor of an exchange or on an electronic communications network. Alternatively, the money manager could approach a firm like ours, which, without seeing the trades in the list, would bid for the entire portfolio as principal, offering to execute all of the component trades at market-closing prices for a flat, per-share commission. That's called blind bidding.

Q:How can you bid on a portfolio as principal if you don't know the positions it contains?

A:Here's how it works, mechanically: Every month or so, we provide our clients with a floppy disk containing the latest version of our proprietary portfolio-bidding software.

Whenever they like, they can run this software on a list of positions they'd like to trade. The program will generate an encrypted bid (but no information about actual positions) along with a two-page report giving some of the macro-characteristics of the clients' portfolios things like dollar value long and short, percentage Nasdaq versus listed, index tracking, average spread and some other statistical measures.

The client e-mails or faxes this report to us. We then analyze the report, decrypt the bid and contact the client with the actual price, say 12 cents a share.

All of this means that we're willing to sell to the client all of the positions he wants to buy, and buy from him all of the positions he wants to sell, for a flat 12 cents a share over the entire portfolio. Trades for exchange-listed stocks would occur at their closing prices on the relevant primary exchange, and trades for over-the-counter stocks would take place at the midpoint of Nasdaq's inside market at the close. The bidding process is competitive.

If we're the low bidder and we win the basket, we don't actually see what it contains until after the close, which is when the trade occurs.

Q:Why would a money manager pay 12 cents a share to trade this way, when he could pay an agency commission of 6 cents a share to work these trades conventionally?

A:You have to remember that commission costs are only one component of overall trading costs. There are many trades for which slippage and opportunity costs substantially outweigh the more explicit costs of commissions.

Since all of the position risk in the case of a principal basket trade is transferred from the client to D.E. Shaw Securities, the commissions on principal baskets are usually higher than commissions for agency trades. Because a client's slippage and opportunity costs are effectively zero, however, overall transaction costs are often lower with a principal basket trade than they would be with other methods for trading the same basket of stocks.

Q:Can you help an institution decide the best way to trade a particular basket on a case-by-case basis?

A:Yes. We're asked to do that quite often. The huge focus on transaction costs in recent years means that the buyside is more sensitive than ever before to hidden costs, like slippage and opportunity costs. So, we're able to use our proprietary models to help clients analyze how much slippage they should expect to suffer completing a particular trade under various time horizons. We show them the numbers, and then let them decide how to trade.

Sometimes, the smartest thing for the client to do is to have us trade a basket on an agency basis, whereby we use our quantitative trading techniques to minimize market impact. For other baskets, trading as principal is best. It's all in the numbers.

Q:What are the most common applications for principal basket trading?

A:Principal basket trades are ideal for high-opportunity cost trading, when a portfolio manager believes it's important to move money into new stock picks quickly.

Q:Some bulge-bracket firms also bid for principal baskets. How can D.E. Shaw Securities compete against larger firms?

A:You have to remember that firms win principal baskets from clients via a competitive bidding process. Since the executions offered by competing firms is the same trades always take place at market-closing prices clients almost always award the basket to the lowest bidder.

So, the question really is, 'How can D.E. Shaw Securities bid so aggressively for these trades?' The answer is that we believe our risk-management tools to be superior to anyone else in this business. We can bid aggressively for a portfolio because we think we can hedge it more effectively and less expensively than our competitors. That allows us to liquidate the positions very patiently over time.

In fact, we probably bid more aggressively than anyone for difficult trades small-cap and mid-cap baskets included because we have a much better understanding of exactly how much it will cost us to hedge and liquidate difficult positions. It also helps that D.E. Shaw Securities has substantial capital.

Q:Is the field of competitors on the dealer-side crowded?

A:It's funny. Every year some new firm decides to enter this business. They bid too aggressively, win lots of baskets, lose $30 million dollars and drop out of the business six months later. Our pricing is quantitative, not seat-of-the-pants. We're happy to lose a basket if someone else is bidding too aggressively for it.

Q:Do you think portfolio trading will become more popular?

A:It's becoming more common every day. Once upon a time, it was only quantitative money managers, or those who were especially good at measuring transaction costs, that understood the benefits of trading this way.

Today, we're trading with some of the largest pension funds and mutual funds in the world. But I should point out that it will always be the case that different modes of trading make sense for different trades. The portfolio-trading shoe doesn't always fit.

That's why we offer agency baskets, principal baskets, single-stock agency trades, third-market trades and block executions. The trick is knowing what

trading mechanism makes the most sense for a given trade, and then helping your customers optimize the implementation of their investment decisions accordingly. This is a concept we call "smart liquidity." We believe, in fact, that the market makers and dealers around ten years from now will be the ones who have learned that one size doesn't fit all.

High-priced spreads; they're hindering 'Net stock options.(The Striking Price)(Market Week)(Abstract)(Column)
Schaeffer, Bernie
Barron's, 79, 5, MW13(1), Feb 1, 1999

Trading in options on Internet stocks such as E*Trade has been much less frenzied than trading in the stocks themselves. The wide bid/asked spread on Internet stocks may be discouraging investors. E*Trade shares trade on Nasdaq at a bid/asked spread ranging from 1/16 point to 1/2 point, meaning the average slippage for the high-priced stock is about 0.25%. E*Trade options on Jan 15, 1999 were trading at a bid/asked spread of about 2 points for the April 50 put, meaning buyers at a price of 6 would face a 33% slippage if they sold at the bid.